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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte BA-ZHONG SHEN, WADE K. WAN, BRIAN HENG, and
ZHIJIE YANG

_____

Appeal 2015-007819
Application 13/333,424
Technology Center 2400

_____

Before JOSEPH L. DIXON, NORMAN H. BEAMER,
and JAMES W. DEJMEK, *Administrative Patent Judges.*

BEAMER, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's

Final Rejection of claims 1–23.[1] We have jurisdiction over the pending

rejected claims under 35 U.S.C. § 6(b).

We reverse.

_____

[1] Appellants identify Broadcom Corporation as the real party in interest.
(App. Br. 3.)

THE INVENTION

Appellants' disclosed and claimed invention is directed to video coding using adaptive prediction complexity reduction. (Abstract.)

Claim 7, reproduced below, is illustrative of the claimed subject matter:

> 7. A apparatus comprising:
>
> a communication interface;
>
> a memory; and
>
> a processor configured to:
>
> > perform intra-prediction video encoding of a first frame of an input video signal to generate a first portion of an output video bitstream;
> >
> > select a subset of the first frame of the input video signal and provide the selected subset to the memory for storage therein, wherein the selection is based, at least in part, on the intra-prediction video encoding; and
> >
> > perform inter-prediction video encoding to generate at least one motion vector using the subset of the first frame of the input video signal that is stored in the memory and a second frame of the input signal a second portion of the output video bitstream.

REJECTION

The Examiner rejected claims 1–23 under 35 U.S.C. § 103(a) as being unpatentable over Van Der Auwera (US 2012/0082224 A1, pub. Apr. 5, 2012), Wang (US 2009/0161697 A1, pub. June 25, 2009), and Dvir (US 8,542,737 B2, issued Sept. 24, 2013). (Final Act. 3–13.)

ISSUE ON APPEAL

Appellants' arguments in the Appeal Brief present the following dispositive issue:[2]

Whether the Examiner erred in finding the combination Van Der Auwera, Wang, and Dvir teaches or suggests the limitation of independent claim 7, "select a subset of the first frame of the input video signal and provide the selected subset to the memory for storage therein, wherein the selection is based, at least in part, on the intra-prediction video encoding," and the similar limitation recited in independent claims 1 and 16. (App. Br. 11–21.)

ANALYSIS

For the limitation at issue, the Examiner relies on the disclosure in Dvir of compressing a video image using downsampling, inter-prediction coding, and intra-prediction coding techniques applied to "sub-images" of frames of a video sequence. (Final Act. 5–7; Ans. 2–8; Dvir col. 1, l.50– col. 2, l. 7, col. 8, ll. 5–18, col. 9, ll. 33–36, col. 10, ll. 17–26, col. 17, ll. 14– 16.)

Appellants argue there is no teaching in Dvir of selecting a subset of a video frame, to be used for intra-prediction video encoding, based on intra-prediction video encoding of that frame. (*E.g.*, App. Br. 2–3.) We agree with Appellants. We note the Examiner cites extensively to general

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[2] Rather than reiterate the arguments of Appellants and the findings of the Examiner, we refer to the Appeal Brief (filed Mar. 26, 2015); the Reply Brief (filed Aug. 24, 2015); the Final Office Action (mailed Oct. 24, 2014); and the Examiner's Answer (mailed June 22, 2015) for the respective details.

teachings in the Dvir reference regarding intra-prediction coding and inter-prediction coding of video sub-images, and describes those portions as disclosing the selection of sub-images is "based, at least in part, on the intra-prediction video encoding." However, as Appellants correctly argue, that aspect of the claims does not appear in the cited portions of Dvir, which generally disclose encoding concepts but do not disclose selecting portions of an image for use in intra-prediction coding, which selection is based on intra-prediction coding of that image. (Reply Br. 7.) Nor has the Examiner explained how Dvir or the other cited references, alone or in combination, teach or suggest this claim limitation.

In sum, we agree with Appellants that the Examiner does not provide prima facie support for the rejections. "[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Therefore, on the record before us, we are constrained to find the Examiner errs in rejecting independent claims 1, 7, and 16.

CONCLUSION

For the reasons stated above, we do not sustain the obviousness rejections of independent claims 1, 7, and 16. We also do not sustain the obviousness rejections of claims 2–6, 8–15, and 17–23, which claims are dependent from claims 1, 7, or 16.

DECISION

We reverse the Examiner's rejections of claims 1–23.

<u>REVERSED</u>